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STATE CORPORATION COMMISSION
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APR 28 2021

Case No. PUR-2020-00169
Sponsor: ("DOMINION")
Exhibit No. 25

Witness: GEORGE E. HITCH
Bailiff: JABARI T. ROBINSON

WITNESS REBUTTAL TESTIMONY SUMMARY

Witness: George E. Hitch
Title: Senior Market Originator

Company Witness George E. Hitch responds to testimony offered by Appalachian Voices Witness Karl R. Rábago on how the Company plans to meet its obligations under RGGI. Notably, no other witnesses in this proceeding share the concerns raised by Mr. Rábago. Mr. Hitch explains his belief that Mr. Rábago's conclusions are based on a misunderstanding of both the focus of this proceeding and the Company's RGGI compliance strategy, and should be rejected.

As to the focus of this proceeding, Mr. Hitch explains that the Company seeks approval to recover projected and actual costs associated with purchasing sufficient RGGI allowances to cover its CO_2 emissions through the end of the initial rate year—July 31, 2022. In the short term, RGGI compliance will be based on the Company's existing generation fleet. This is because the actual number of allowances the Company must obtain to comply with RGGI is going to be determined by the actual emissions of CO_2 from the Company's generators—not on the potential future generation mixes considered in IRPs. Actual CO_2 emissions, in turn, will be determined by how PJM dispatches generators in the region. PJM dispatches generators economically based on the unit offer price, which includes the projected cost of RGGI allowance purchases along with other costs, such as fuel. If a generator subject to RGGI clears the day-ahead market and is dispatched by PJM, the unit is required to run. If the unit runs, it will emit CO_2. The Company must then acquire allowances to cover the CO_2 emissions of these generators. While the Company will evaluate its long-term strategy for CO_2 emissions in its IRP proceedings, as Company Witness Compton can address, the focus in this proceeding should remain on complying with RGGI in the short term—through 2022.

Next, Mr. Hitch describes the Company's plan to meet its obligation under RGGI, which Mr. Rábago seems to misunderstand. Generally, the Company's plans to acquire allowances for the current year to cover CO_2 emissions as the emissions are occurring. The Company does not intend to "purchase huge amounts of allowances and then carry a significant surplus" as Mr. Rábago suggests. As Mr. Hitch explains, the Company determined its approach based on the size of the Company's compliance requirement in the short term, as well as the relevant market structure and dynamics. The Company also plans to acquire a bank of 10% to 20% of the annual requirement at the end of each three-year control period to cover both (i) deviations from the emissions forecast in the final two months of the control period; and (ii) unexpected auction results in the final auction of the control period.

Mr. Hitch concludes that the Company must start purchasing allowances now to ensure that it can cost-effectively comply with its obligations under RGGI. The projected and actual costs presented in this proceeding focus on the short term—through July 2022. Commission Staff does not oppose these costs, with Staff Witness Patrick Carr stating on page 4 of his testimony that "[a]ll cost described are appropriately recoverable through Rider RGGI because all are costs incurred to comply with RGGI requirements." These costs are necessary to comply with RGGI, and are based on a reasonable and prudent strategy for compliance.

EXHIBIT# 25

REBUTTAL TESTIMONY
OF
GEORGE E. HITCH
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2020-00169

Q. Please state your name, business address, and position with Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company").

A. My name is George E. Hitch, and I am a Senior Market Originator for the Company. My business address is 600 East Canal Street, Richmond, Virginia 23219. A statement of my backgrounds and qualifications is attached as Appendix A.

Q. Have you previously submitted testimony in this proceeding?

A. No, but I am adopting the pre-filed direct testimony of Company Witness C. Eric McMillan, which was filed with the State Corporation Commission of Virginia (the "Commission") on November 9, 2020.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. I am presenting testimony in support of the Company's petition for approval of a rate adjustment clause, designated Rider RGGI, under § 56-585.1 A 5 e of the Code of Virginia ("Va. Code") to recover projected and actual costs related to the purchase of allowances through the Regional Greenhouse Gas Initiative ("RGGI") market-based trading program for carbon dioxide ("CO_2") emissions, a program in which the Company is required to participate. Specifically, my rebuttal testimony responds to testimony offered by Karl R. Rábago on behalf of Appalachian Voices ("APV") on how the Company plans to meet its obligations under RGGI.

Q. Before you begin, do any of the other witnesses in this proceeding share the concerns raised by APV Witness Rábago?

A. No, they do not. Witnesses for Commission Staff ("Staff") does not oppose approval of Rider RGGI with one small correction to the revenue requirement with which the Company agrees, as addressed by Company Witness John C. Ingram. The witness for the Office of the Attorney General's Division of Consumer Counsel only provides testimony on the Company's proposal to include financing costs as part of the proposed revenue requirement, which Company Witness Ingram also addresses.

Mr. Rábago is thus the only witness in this proceeding that questions the necessity of the RGGI-related costs proposed by the Company, and the Company's RGGI compliance strategy. As I will explain, I believe that Mr. Rábago's conclusions are based on a misunderstanding of both the focus of this proceeding and the Company's RGGI compliance strategy, and should be rejected.

Q. What is the focus of this proceeding?

A. In this proceeding, the Company seeks approval to recover projected and actual costs associated with purchasing sufficient RGGI allowances to cover its CO_2 emissions through the end of the initial rate year—July 31, 2022. In other words, this proceeding focuses on the short term, the next one to two years.

Mr. Rábago seems to misunderstand the scope of this proceeding, stating on page 7 of his testimony that we must "start from the results of an approved and sufficient integrated resource plan." I disagree. I understand that an integrated resource plan ("IRP") is a long-term planning document that evaluates how to meet customer demand over the next

15 and 25 years. As discussed further by Company Witness Shane T. Compton, the Company evaluates generation development, plant retirements, heat rate improvements, and energy efficiency improvements (all mentioned by Mr. Rábago on page 5 of his testimony), among other issues, through its integrated resource planning process. While these actions will factor in to a long-term strategy for CO_2 emissions, they have virtually no effect on short-term CO_2 emissions or, correspondingly, on short-term RGGI allowance requirements.

Accordingly, instead of starting with an approved IRP as Mr. Rábago suggests, the appropriate starting point for RGGI compliance in the short term is the Company's existing generation fleet. This is because the actual number of allowances the Company must obtain to comply with RGGI will be determined by the actual emissions of CO_2 from our generators—not on the potential future generation mixes considered in IRPs. Actual CO_2 emissions, in turn, will be determined by how PJM Interconnection, LLC ("PJM") dispatches generators in the region. PJM dispatches generators economically based on the unit offer price, which includes the projected cost of RGGI allowance purchases along with other costs, such as fuel. If a generator subject to RGGI clears the day-ahead market and is dispatched by PJM, the unit is required to run. If the unit runs, it will emit CO_2. The Company must then acquire allowances to cover the CO_2 emissions of these generators.

In sum, while the Company will evaluate its long term strategy for CO_2 emissions in its IRP proceedings, as Mr. Compton can address, the focus in this proceeding should remain on complying with RGGI in the short term—through 2022.

Q. Turning to the Company's plan to meet its obligations under RGGI, APV Witness Rábago summarizes the Company's plan on page 13 of his testimony as one "to rapidly purchase huge amounts of allowances and then carry a significant surplus of allowances, on which the Company proposes to earn a return on equity." Is this description accurate?

A. No, not at all. As described in the Company's direct testimony, the Company forecasted the emissions from its existing generation fleet through the end of 2022. The Company intends to acquire approximately 25% of the forecasted annual allowance requirement in each quarterly auction, and then use the secondary market to fill any auction deficiencies. In other words, the Company's plan to meet its RGGI obligation is to acquire allowances for the current year to cover CO_2 emissions as the emissions are occurring.

In practice, now that RGGI has become effective in the Commonwealth, the Company is tracking forecasted CO_2 emissions volumes against actual volumes on a monthly basis as those volumes become known. The Company is also refining its intra-year forecast based on the most up-to-date forward market conditions. My Rebuttal Table 1 illustrates the Company's current and forecasted net position for 2021 to help provide some context.

Revised Rebuttal Table 1: Actual and Forecast Net Allowance Position

(thousands of short tons CO_2)	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Forecast Short Tons CO_2	1,295	1,402	1,595	1,210	1,353	1,435	2,057	2,148	1,625	946	1,259	1,619
Actual Short Tons CO_2	1,528	2,004	1,619									
Monthly Deviation	233	602	24									
Total Deviation	233	835	859									
Cumulative Requirement	1,528	3,532	5,151	6,361	7,714	9,149	11,206	13,354	14,979	15,925	17,184	18,803
Inventory	1,300	1,300	1,300	5,375	5,375	5,375	10,375	10,375	10,375	15,375	15,375	15,375
Auction Purchases	0	0	4,075	0	0	4,250	0	0	4,250	0	0	4,250
Bilateral Purchases	0	0	0	0	0	750	0	0	0	0	0	0
Planned Purchases	0	0	0	0	0	0	0	0	750	0	0	750
Net Position	(228)	(2,232)	224	(986)	(2,339)	1,226	(831)	(2,979)	396	(550)	(1,809)	1,572

Notes: 1) CO_2 emissions volumes are actuals through March 2021, and forecasts for the balance of the calendar year. 2) Actual CO_2 emissions volumes in this Table include all emissions from VCHEC; actual emissions from VCHEC will be revised to exclude CO_2 emissions attributable to biomass once a calculation methodology is finalized with DEQ. 3) If Rider RGGI is approved, these actual volumes will be accounted for through the true-up in next year's Rider RGGI.

The top half of Rebuttal Table 1 shows forecasted versus actual CO_2 emissions. As can be seen, actual emissions can vary significantly from forecasts. As I explained, actual emissions result from how PJM dispatches generators in the region. The bottom half of Rebuttal Table 1 shows the Company's allowance requirement (one allowance per short ton of CO_2 emitted) against the Company's actual and forecasted inventory of allowances. As can be seen, the Company has a negative net allowance position in most months. The Company has not "purchased huge amounts of allowances" and is not carrying "a significant surplus," as Mr. Rábago suggests.

Q. **APV Witness Rábago also provides more general criticism of the Company's plan to meet its obligations under RGGI primarily through the quarterly auctions. Does the size of the Company's compliance requirement factor in to the Company's strategy?**

A. Yes, it does. The Company determined its strategy based on the forecasted volume of allowances it will need to obtain in the near term—approximately 19,000,000 allowances per year during the period from January 1, 2021 to December 31, 2023 ("fifth control period"). Based on these forecasts—which are tracking with actuals as shown above in my Rebuttal Table 1—the Company's requirement is approximately 20% of the annual allowances sold in the RGGI quarterly auctions. Indeed, APV Witness Rábago seems to recognize the significance of the Company's obligation, stating through discovery that he "is not aware of an existing operator or owner in other RGGI jurisdictions that is both vertically integrated and will be using allowances on the same scale as the Company." That response is attached to my testimony as Rebuttal Schedule 1.

Q. With these potential compliance requirements in mind, please describe the market structure and dynamics that factored in to the Company's proposed approach to RGGI compliance.

A. As Company Witness McMillan explained in his pre-filed direct testimony, which I adopt, regulated sources acquire allowances to comply with RGGI by purchasing them at quarterly auctions or through secondary markets. The quarterly RGGI auctions offer the greatest volume and liquidity. The most recent RGGI quarterly auction was conducted on March 2, 2021, in which 23,467,261 allowances were sold. Forty-eight separate bidders participated in the auction, with three separate bidders in the March auction purchasing in excess of 4,000,000 allowances each. This shows the high degree of liquidity in the quarterly auctions. By contrast, the average transaction in the over-the-counter market is 100,000 to 250,000 allowances, or 0.5 to 1.25% of the Company's forecasted annual CO_2 emissions. On the day of the March auction, the futures market net volume (excluding spread transactions where a party simultaneously buys and sell two different vintages) was only 1,962,000 allowances. As these numbers show, the Company's compliance obligation is simply too large to be met through the secondary markets alone.

Another important consideration is that RGGI auction rules limit each bidder to 25% of the volume offered in each auction. Because Dominion Energy Virginia requires approximately 20% of the annual auction volume to cover its emissions, if the Company falls behind, it will not be able to make up the difference in future auctions. Given the size of the Company's allowance requirement, it is not prudent for the Company to fall behind because this will expose customers to unnecessary price and compliance risk. To put this in perspective, this means that if the Company does not acquire allowances in just 2 of the 12 quarterly auctions in the fifth control period, the Company will not being able to "catch up" by the end of the control period through auction purchases, and there will be a higher likelihood that allowances would have to be purchased at a higher price through the less liquid, more volatile secondary market.

The Company's programmatic, auction-centered approach means that these allowances will generally be acquired in the next auction without the risks associated with speculating on future prices. If there are opportunities in the secondary markets at favorable price levels, the Company may acquire allowances in those markets as well. For the Company, the secondary markets are more appropriate for managing monthly deviations from the forecast.

Q. APV Witness Rábago suggests on page 8 of his testimony that the Company should be "optimiz[ing] costs from allowance auctions and secondary market purchases, including futures contracts." Please comment.

A. I do not believe this approach is practical given the size of the Company's compliance obligation in the short term. Even if the Company correctly "picks the bottom" price of the markets, the Company simply cannot acquire enough allowances at that price to meet its compliance obligations. That strategy might be appropriate for a single combustion turbine that needs to acquire 100,000 allowances a year, but it simply will not work for the Company's fleet of 47 regulated sources that require 20% of the allowances auctioned by RGGI each year in the short term. The RGGI secondary market is not a sufficiently liquid market to rely upon to attempt to optimize the purchased cost of RGGI allowances for a fleet of the Company's size.

I would also note that if the Company purchases futures contracts, it has no control over the vintage of allowances delivered. To the extent the counterparty delivers allowances with pre-2021 vintages, no proceeds from those transactions would flow back to the Commonwealth of Virginia as they would with auction purchases.

Q. Overall, APV Witness Rábago suggest on page 8 of his testimony that the Company "should develop a least-cost strategy" for RGGI compliance. Do you believe the Company has done so?

A. Yes, I do. Acquiring allowances in the RGGI quarterly auctions is the most prudent path to compliance in the short term because of the liquidity and depth of allowances offered in the auctions as compared to the secondary markets. In determining its approach, the Company compared volumes across the primary RGGI market (*i.e.*, the auction) and the secondary markets (*i.e.*, over-the-counter and futures), and determined the most prudent approach was to acquire most of the required allowances in the auctions where the volume is the greatest, and the liquidity supports the largest volume purchases. Overall, the Company can only acquire the significant volume of allowances it needs using an "all of the above" approach to compliance, centered on the RGGI auctions.

As stated in the direct testimony, the Company will continue to evaluate its compliance strategy and adjust it as needed. However, in the short term, there are limited options available to reach compliance because of the size of the Company's compliance requirement. Purchasing the majority of required allowances in the most liquid market is the reasonable and prudent approach, and will very likely prove to be the least-cost approach.

Q. APV Witness Rábago states on page 8 of his testimony that it would be "wise for the Company to develop a banking strategy," but disagrees with the Company's proposed strategy. Please explain the Company's proposed banking strategy and why it represents a reasonable approach.

A. The Company agrees that a bank is important, but believes there may have been some confusion on how the Company has used the term "bank." In pre-filed direct testimony and here, the Company defines the term "bank" to mean the quantity of allowances owned by a compliance entity in excess of the compliance requirement for a given three-year control period. In other words, the "bank" will become relevant at the end of the control period (*i.e.*, every three years) once final CO_2 emissions are known. For example, the Company will know the total quantity of allowances required for the fifth control period (*i.e.*, 2021 to 2023) in early January 2024, after the December 2023 quarterly auction. In January 2024, the bank will be calculated as allowances that the Company has on hand minus tons of CO_2 emissions from 2021 to 2023.

The bank is necessary to cover both (i) deviations from the emissions forecast in the final two months of the control period; and (ii) unexpected auction results in the December 2023 auction, the final auction in the fifth control period. Prudent risk management dictates that the Company must have a bank of excess allowances at the end of each control period to protect customers from forecast uncertainty, price volatility, and noncompliance penalties. The penalty for noncompliance in RGGI is steep, requiring three allowances for every short ton of excess emissions rather than one.

The Company has proposed a bank of 10% to 20% of the annual requirement at the end of each three-year control period, or approximately 2 to 3 million allowances. This proposed bank is based on prior deviations the Company observed between actual emission and forecasted emissions. For example, in 2019, the Company observed two consecutive months where actual CO_2 emissions exceeded forecasted emissions by 1,271,000 short tons. More recently, actual emissions exceeded forecasted emissions by 1,083,000 tons in January and February 2021. This magnitude of weather-driven forecast deviation, combined with the potential for under-procurement in the final auction of the control period due to a clearing price significantly above than the market, make the proposed bank of approximately 2 to 3 million allowances both reasonable and prudent.

Q. Do you have any final comments in response to APV Witness Rábago's testimony?

A. For the reasons I have discussed, the Company must start purchasing allowances now to ensure that it can cost-effectively comply with its obligations under RGGI. The projected and actual costs presented in this proceeding focus on the short term—through July 2022. Staff does not oppose these costs, with Staff Witness Patrick Carr stating on page 4 of his testimony that "[a]ll cost described are appropriately recoverable through Rider RGGI because all are costs incurred to comply with RGGI requirements." These costs are necessary to comply with RGGI, and are based on a reasonable and prudent strategy for compliance.

Q. Does this conclude your pre-filed rebuttal testimony?

A. Yes, it does.

APPENDIX A

BACKGROUND AND QUALIFICATIONS
OF
GEORGE E. HITCH

George Hitch joined Dominion Energy in 2002 as an Hourly Trader. Since then he has also held the roles of Coordinator Hourly Trading and Generation Asset Trader at both the regulated utilities and Dominion Energy Marketing. In these roles, he has traded physical and financial power, capacity, RECs, and emissions in the spot and forward markets.

Mr. Hitch assumed his current role of Senior Market Originator in November 2016. In this role, he is part of the group responsible for managing the Company's regulated capacity, energy, emissions, and REC portfolios. His group is also responsible for developing and executing short-term compliance strategies for the renewable energy portfolio standards in both Virginia and North Carolina, and for the Regional Greenhouse Gas Initiative.

Mr. Hitch has a Bachelor of Science degree from Virginia Tech. He has previously presented testimony before the North Carolina Utility Commission.

Virginia Electric and Power Company
Case No. PUR-2020-00169
Environmental Respondent's Responses to
Dominion Energy Virginia First Set

The following response to Question No. 6 of the First Set of Interrogatories and Requests for Production of Documents propounded by Dominion Virginia Power to Environmental Respondent received on March 8, 2021, has been prepared under my supervision.

Karl R. Rábago

Question No. 6

Refer to page 4 of Rábago Direct. Please define "resource portfolio-based strategy." Please provide examples of where such a strategy has been used for RGGI compliance in other jurisdictions.

Response:

As used in his testimony, a "resource portfolio-based strategy" is one that identifies least-cost compliance strategies, taking into account the Company's entire existing and future supply-side generation portfolio and is integrated with resource planning efforts in the Integrated Resource Plan and RPS Compliance plan.

Environmental Respondent is not aware of an existing operator or owner in other RGGI jurisdictions that is both vertically integrated and will be using allowances on the same scale as the Company.